



## **Anatomy and Physiology of the Human Knee Joint**

Guide for Curriculum Unit 85.07.06

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The unit introduces the student to different systems of the body, with emphasis on the skeletal and muscular systems. The unit's purpose is to show how the different systems work together to achieve their purpose in the workings of the human body. This unit's emphasis is specifically on the knee joint, but through its specification, includes other body systems that are both investigated and illustrated for use by any teacher that might find this unit useful to his purpose.

The unit first introduces the student to the histology of bone, and then moves into bone, as organs or structures. The structure of bone, as an organ or structure is investigated, and illustrated. Other tissues also play a role in the structure and movement of the body. The knee joint was selected to demonstrate the relationship of different structures to achieve its purpose, movement.

Initially, the unit looks at the histology of bone and also refers to tissues that are related to bone. Bone is both a tissue and an organ, and the differentiation is made clear in the unit.

The muscles of the skeletal system of the lower extremity are introduced in the unit, and the actions of these muscles/muscle groups are described in detail and illustrated within the unit. The motion of the human knee joint is unique and the adaption and motion involved is described.

Finally, types of knee injuries or disorders are explained. Types of rehabilitation are mentioned and give the reader the dimension of knee dysfunction and rehabilitation.

(Recommended for Human Physiology and Biology classes, grades 10 through 12)

### **Key Words**

*Human Anatomy Bone Growth Skeletal Mathematics Teaching Models Knee*

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